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Weekly Bulletin



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EDITOR

**Rat Is Menace  
to Public Health.**

There is no excuse for the existence of rats in any community. They contribute nothing; they destroy much property and they are responsible for the transmission of many serious diseases. They should be exterminated. The United States Public Health Service says:

"Intensive, thorough studies of damage done by rats are lacking, but sufficient random observations are available to make it certain that the cost of maintaining rats is a big economic drain on the Nation. To assign any accurately fixed sum to the amount of injury done by rats in the United States is impossible. But estimating the loss at a rational minimum amount, the sum is astounding. The calculation embraces two factors, i.e., the rodent census and the average amount of damage done by one rat. Both of these factors can be determined within reasonable limitations. By means of trapping percentages covering a period of one year, it has been determined that the rodent population in several American cities is slightly in excess of the human population. In the rural districts of the United States the number of rats on any farm will easily average three or four times the number of people on the estate, and in the grain or cane producing areas the proportion will be multifold.

It has been determined that the rat will consume 50 pounds of grain in a year and will damage considerably more. The estimate of one rat per human being for the continental United States coincides with that for Great Britain and Ireland, made by the Incorporated Society for the Destruction of Vermin, and also for authoritative figures for Denmark, France and Germany. The annual upkeep per rodent was computed by the same authorities as \$1.80 in Great Britain, \$1.20 in Denmark, and \$1 in France. The depredations of rats in this country will probably exceed the estimate made for Great Britain. One-half cent per day would be a conservative estimate however.

The list of articles damaged by rats is too long to enumerate in detail, but in general they are all kinds of grain, before and after harvesting; eggs and poultry, especially small chicks; wild birds, their eggs and young; fruits and vegetables, both when growing and when stored; flowers, bulbs, and shrubbery, all kinds of staples in bags or boxes; and all food products in pantries, groceries, meat markets, bakeries, stables, and general markets. The nonedible articles destroyed include leather goods, books, papers, clothing, and fabrics, partly for the glue, starch, or paste these articles may contain, and also for material for the rat's nest.

**TRAPPING.**

Rat destruction can be accomplished by individual effort to a limited degree, but



to be successful in a large city the measures attempted must be communal in nature—i. e., the rat proofing of buildings. No spasmodic or individual effort will result in the desired end.

Rats can be destroyed by trapping, by poisoning, and by using natural enemies, such as certain breeds of cats and dogs. To insure the success of these measures it is necessary to curtail the rat's food supply by properly disposing of garbage and table refuse, and by preventing rats from gaining access to such food as is contained in pantries, groceries, markets, stables, etc. The municipal government will have to assist the efforts of the citizens along this line by creating and enforcing rat-proofing laws. To merely keep premises clean and free of rubbish will be of but little benefit, as Norway rats, even when abundant rubbish is available, prefer more secure covert, as that beneath floors, and within double walls and ceilings.

Much has been written about rat trapping, the pattern of trap or kind of bait, and methods of trapping; but after all has been said and done, it still remains probable that success in trapping is proportional to the attention and industry the trapper devotes to his traps and the protection of other food supplies. Two kinds of traps are generally used—the wire cage trap and the snap trap or dead-fall. To obtain the best results the traps must be well attended and frequently moved from one place to another. Large cage traps, 20 inches in length, are much more effective than the smaller ones. The placing of traps is important. They should be placed wherever rats have been accustomed to come for feeding purposes and should be more or less concealed, the small snap traps by scattering dust, flour, or corn meal on or about them, and the cage trap by pieces of sacking, straw, or rubbish, leaving only the opening free.

The prerequisite of successful trapping is that no food, other than the bait, shall be available to the foraging rodents. Other things being equal, highly savored articles, such as cheese and toasted bacon, will more quickly attract rats than will food without odor; but the idea that a rat can be enticed into a trap by the employment of bait more appetizing to him than the surrounding food supply is fallacious. To the rat, food supply is a question of availability, and preference is of secondary consideration.

Generally speaking, however, it is probable that the rodent which frequents a grain house is most successfully trapped

by the use of grain; and in meat markets, meat may be the best bait; or, again, rats found in green groceries, where vegetables are kept, are more easily attracted by baiting the trap with vegetables.

#### RAT PROOFING.

Structures that are difficult to keep rat free, even though structurally rat proof, are storage wharves and large wholesale warehouses where immense quantities of provisions remain stored during long periods.

Rat proofing by elevation is chiefly applicable to small and medium size buildings. The intent is to have sufficient elevation, about two feet, so that the ground area beneath shall be as exposed and free from covert as unbuilt-upon land.

For more pretentious dwellings, where sufficient care can be exercised to prevent rodents from gnawing through plank flooring, a marginal rat proof foundation wall will suffice.

Double walls with a dead space between should be avoided, or, if used, should be rat proofed at top and bottom with heavy wooden timbers, 4 by 4 joists, or by a concrete fill. Attics should be well opened and kept free of dunnage or other refuse for rats.

Double ceiling should be avoided, especially so in basements. Boxed-in structures, such as uprights in roughly finished dwellings, plumbing, kitchen sinks, and sundry similar arrangements, often furnish rat harborage. Such boxing should be removed. Porches and steps should be given the same consideration as the body of the house.

Miscellaneous openings, as light shafts, ventilators and open windows, should be screened, preferably by 12-gauge wire screen with mesh not exceeding one-half inch. Abandoned sewers or drain-pipes at times give access to rodents and should be protected.

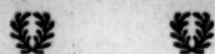
The garbage depository must be given careful attention. It should be metal, preferably a galvanized iron can, water-tight to prevent seepage which would attract rats, and should have a closely fitting lid. A can two feet in height without cover will not be proof against the incursion of rats.

The grounds around a building are to be devoid of rat harborage. Premises are to be kept clean and free of rubbish. Plank walks and plank covering for yards are to be avoided. Cinders or concrete are preferable for this purpose. If the latter material is used, it should have marginal protection to prevent rodents from burrowing beneath.



Chickens, goats, hares, pigs and other animals that are generally fed on table scraps ought not to be allowed within the city limits.

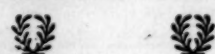
Chicken yards, when so permitted, may be rat proofed by a concrete wall at the periphery, sunk into the ground two feet or more, with one-half inch mesh wire netting covering the top and sides."



### New Health Officers Receive Appointments.

Dr. George Parrish, who has been health officer of Portland, Oregon, for many years, has been appointed health commissioner of Los Angeles to succeed the late Dr. Luther M. Powers.

Among other newly appointed health officers are Dr. Harry J. Willey of Porterville, who succeeds Dr. O. C. Higgins as city health officer; Mr. Frank B. Wilcoxon of Pacific Grove, who succeeds Mr. James P. Evans as health officer of that city; and Dr. John A. Azevedo of Hayward, who succeeds Dr. Paul Dolan of Livermore as health officer of Alameda County.



### General Death Rate Higher in 1923.

The Department of Commerce announces that 1,193,017 deaths occurred in 1923 within the death registration area of continental United States, representing a death rate of 12.3 per 1000 population as compared with a rate of 11.8 in 1922.

The death registration area (exclusive of the territory of Hawaii) in 1923 comprised 38 states, the District of Columbia, and 14 cities in nonregistration states, with a total estimated population on July 1 of 96,986,371, or 87.6 per cent of the estimated population of the United States.

The increase in the rates from influenza, from 31.4 per 100,000 population in 1922 to 44.7 in 1923, and from pneumonia (all forms) from 102.1 per 100,000 population in 1922 to 109 in 1923, accounts for nearly half the increase in the rate from all causes. Some of the other causes for the rates increased are diseases of the heart, measles, cerebral hemorrhage, whooping cough, cancer, automobile accidents, nephritis, railroad accidents, and accidental falls.

Decreases appear in the death rates from tuberculosis (all forms), diphtheria, malaria, and typhoid and paratyphoid fever.

### LIST OF DISEASES REPORTABLE BY LAW.

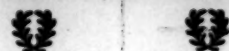
ANTHRAX	MUMPS
BERI-BERI	OPHTHALMIA NEONATORUM
BOTULISM	PARATYPHOID FEVER
CEREBROSPINAL MENINGITIS (Epidemic)	PELLAGRA
CHICKENPOX	PLAGUE
CHOLERA, ASIATIC	PNEUMONIA
DENGUE	POLIOMYELITIS
DIPHTHERIA	RABIES
DYSENTERY	ROCKY MOUNTAIN
ENCEPHALITIS (Epidemic)	SPOTTED (or Tick) FEVER
ERYSIPELAS	SCARLET FEVER
FLUKES	SMALLPOX
FOOD POISONING	SYPHILIS*
GERMAN MEASLES	TETANUS
GLANDERS	TRACHOMA
GONOCOCCUS INFECTION*	TUBERCULOSIS
HOOKWORM	TYPHOID FEVER
INFLUENZA	TYPHUS FEVER
JAUNDICE, INFECTIOUS	WHOOPING COUGH
LEPROSY	YELLOW FEVER
MALARIA	
MEASLES	

### QUARANTINABLE DISEASES.

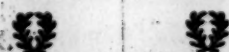
CEREBROSPINAL MENINGITIS (Epidemic)	POLIOMYELITIS
CHOLERA, ASIATIC	SCARLET FEVER
DIPHTHERIA	SMALLPOX
ENCEPHALITIS (Epidemic)	TYPHOID FEVER
LEPROSY	TYPHUS FEVER
PLAGUE	YELLOW FEVER

\*Reported by office number. Name and address not required.

Section 16. Public Health Act. All physicians, nurses, clergymen, attendants, owners, proprietors, managers, employees, and persons living in or visiting any sick person in any hotel, lodging house, house, building, office, structure, or other place where any person shall be ill of any infectious, contagious, or communicable disease, shall promptly report such fact to the county, city and county, city, or other local health board or health officer, together with the name of the person, if known, and place where such person is confined, and nature of the disease, if known.



Better health means better business.



Beware of the "common cold." There is danger in running noses.



### MORBIDITY.\*

#### Diphtheria.

174 cases of diphtheria have been reported, as follows: Los Angeles 41, San Francisco 22, National City 11, Oakland 12, Berkeley 7, San Jose 5, Los Angeles County 9, San Diego 3, Bakersfield 2, Fullerton 1, Palo Alto 1, Turlock 1, Alameda 1, Alhambra 2, Santa Ana 1, San Bernardino County 2, Tehama County 1, Chico 3, Hermosa Beach 1, Sacramento 4, Orange County 1, Ontario 1, Long Beach 2, Richmond 3, San Fernando 1, Redondo Beach 1, Chula Vista 1, Huntington Park 2, Glendale 3, Fresno 2, Monterey County 1, Sonoma County 4, Oroville 1, San Benito County 1, Alameda County 3, Burlingame 1, San Mateo County 1, Redwood City 1, Pasadena 2, Stockton 2, Watsonville 2, San Diego County 1, Whittier 2, Merced County 1, Monrovia 1, Salinas 3.

#### Scarlet Fever.

155 cases of scarlet fever have been reported, as follows: San Francisco 28, Los Angeles 27,

\* From reports received on December 15 and 16 for week ending December 13.



Long Beach 13, San Jose 8, Fresno County 5, San Diego 11, Tulare County 5, Parlier 1, Alameda County 3, Riverside 3, Sacramento 4, Redlands 3, Orange County 1, Escondido 2, Gilroy 1, Pomona 1, Alhambra 4, Stockton 1, San Leandro 2, Willits 2, Huntington Park 1, Orange 3, Santa Clara 1, Redondo Beach 1, Pasadena 1, Colton 1, Redwood 1, Oroville 1, Richmond 1, San Diego County 2, Bakersfield 1, Stanislaus County 1, San Joaquin County 2, Tracy 1, Los Angeles County 4, Oakland 3, Yuba County 1, Porterville 3, Los Gatos 1.

**Measles.**

35 cases of measles have been reported, as follows: Los Angeles County 8, Los Angeles 5, El Monte 1, San Diego 1, Coalinga 1, Orange County 1, San Leandro 1, Inyo County 4, Sacramento 1, Huntington Park 1, South Gate 1, Pomona 1, San Francisco 4, Compton 1, Pasadena 1, Riverside 1, Long Beach 1, Oakland 1.

**Smallpox.**

69 cases of smallpox have been reported, as follows: Los Angeles 20, Los Angeles County 15, Oakland 7, Placer County 1, Redondo Beach 2, Maywood 1, Bakersfield 1, Stockton 3, Eureka 3, Whittier 1, Sacramento 4, Alhambra 1, San Diego 1, Fresno County 2, Ontario 1, Fresno 2, Ventura County 4.

**Typhoid Fever.**

26 cases of typhoid fever have been reported, as follows: San Leandro 1, Redwood City 1, Blythe 1, Humboldt County 2, Fresno County 1, Chico 1, Trinity County 1, Madera County 1, Plumas County 1, Stockton 3, Oakland 1, Huntington Park 1, San Joaquin County 4, San Francisco 1, Los Angeles 3, California 3.

**Whooping Cough.**

60 cases of whooping cough have been reported, as follows: Los Angeles County 11, Los Angeles 14, San Francisco 17, Long Beach 3, Compton 1, Berkeley 2, San Jose 1, Whittier 3, Tracy 1, Madera County 1, Glendale 3, Oakland 1, Venice 1, Los Gatos 1.

**Epidemic Meningitis.**

Fresno reported one case of epidemic meningitis.

**Poliomyelitis.**

7 cases of poliomyelitis have been reported, as follows: Oakland 1, Pasadena 1, Nevada County 1, Alameda 1, Colusa 1, Berkeley 2.

**Typhus Fever.**

Los Angeles reported 1 case of typhus fever.

**Epidemic Jaundice.**

Pasadena reported one case of epidemic jaundice.

**COMMUNICABLE DISEASE REPORTS.**

Disease	1924				1923			
	Week ending			Reports for week ending Dec. 13 received by Dec. 16	Week ending			Reports for week ending Dec. 15 received by Dec. 18
	Nov. 22	Nov. 29	Dec. 6		Nov. 24	Dec. 1	Dec. 8	
Anthrax.....	1	0	0	0	0	0	0	0
Botulism.....	0	0	0	0	0	0	0	0
Cerebrospinal Meningitis.....	2	3	1	1	5	2	1	1
Chickenpox.....	264	223	400	274	125	140	214	147
Diphtheria.....	171	213	218	174	356	308	345	320
Dysentery (Bacillary).....	0	0	0	0	0	0	0	0
Epidemic Encephalitis.....	4	4	2	0	2	1	3	1
Epidemic Jaundice.....	0	0	0	1	1	0	5	3
Gonorrhoea.....	73	86	105	88	161	96	148	131
Influenza.....	26	23	21	15	30	25	39	35
Leprosy.....	0	1	0	0	0	0	0	0
Malaria.....	0	0	0	1	4	1	0	3
Measles.....	35	26	42	35	315	291	366	323
Mumps.....	107	79	99	91	27	31	40	28
Pneumonia.....	55	53	84	64	56	52	95	58
Poliomyelitis.....	7	12	6	7	9	11	12	4
Rabies (Human).....	0	0	0	0	0	0	0	0
Scarlet Fever.....	137	164	171	155	255	251	243	260
Smallpox.....	97	80	102	69	83	111	164	112
Syphilis.....	132	111	123	108	94	140	173	187
Tuberculosis.....	118	207	164	209	199	150	188	108
Typhoid Fever.....	81	26	35	26	29	28	20	15
Typhus Fever.....	3	0	0	1	0	1	0	1
Whooping Cough.....	101	66	129	60	27	20	41	20
Totals.....	1414	1377	1702	1379	1778	1659	2097	1757

CALIFORNIA STATE PRINTING OFFICE